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# ASTRONOMY CORRECTED.

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## THE OLD THEORIES

CONCERNING THE

## Creation, and the Causes of the Motions of the Solar System,

SHOWN TO BE ERROR.

## THE BETTER THEORY OF THOSE CREATIONS AND MOTIONS,

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BY

H. B. PHILBROOK,

*Counselor at Law.*

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# PREFACE.

This little volume is respectfully submitted to the reading world, in order to remove the errors that have so long deluded mankind in reference to astronomical problems.

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# ASTRONOMY CORRECTED.

Since the development of the nebular hypothesis by the celebrated Laplace, mankind, with the exception of a few astronomers, has seemed to be satisfied that all essential phenomena included in the existence and movements of the solar system and the causes of those phenomena are described and understood.

Nearly all astronomers have, to a great extent, satisfied themselves that existing theories concerning the manner of the creation and the motions of the bodies of our solar system are true, and seem to have adopted the conclusions common with all educated classes, that what has been learned, or what has supposed to have been learned, concerning this system, includes nearly all, if not quite all, there is to be discovered with respect to those creations and those motions.

It is true that they are still searching for other members of the system which they believe exist, and are trying to learn more of the composition and conditions of those portions of the system which are already discovered. But astronomers have always seemed to be inclined to get through with our own system as soon as possible, and em-

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ploy their time and abilities in the examination of those realms of law and matter beyond the limits of our own most beautiful and beneficent system. The abler astronomers have seemed to be most inclined to this habit, and the elder Herschell was perhaps the most conspicuous example of this class.

This tendency seems to have induced nearly the whole class of professional astronomers to consider all the theories concerning the creation and movements of the solar system, which are generally believed, so well settled as to require no further investigation, and evidently with the belief on their part that these theories are true. For the latter fact we have indeed their own words, for with the great majority of astronomers there is not only no denial of the popular theories respecting the manner of the creation and the causes of the motions of the different bodies of the system, as settled by the discoveries of Newton and Laplace, but nearly the entire number of astronomers are teaching mankind to-day that these theories are true. That there are some who neither believe nor teach these theories, I am willing to admit, but they are unable to shake the confidence people have in the old and familiar theories of Newton respecting the motions and attractions of these different worlds, and the theory of Laplace, as far as it is understood, respecting the creation of these bodies and the motions attending their creation.

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I will state that they never will be able, nor will others, to shake the confidence of mankind in these theories until they are able to show by the most conclusive proof that these theories are wrong; and it will be impossible for any one to do this without disclosing the existence of other facts and laws, which will not only prove that errors in these theories exist, or that they are wholly wrong, but which will at the same time indicate the true method of solving all these problems. Is it possible that such a task can be accomplished? Is it a fact that these theories are wholly or partly wrong? Is it possible that there is extensive matter in the universe, and connected with this solar system, of which science has taken no notice? Is it possible that a force exists, and ever has, that has been and now is exerted upon every particle and body of matter in this system of which science has not even dreamed? Is it true that a belief in the existence of this force and this matter must after all take the place of the belief in the existence of those facts and forces which are now claimed to exist, and which it is claimed explain all the motions, and to some extent the creation, of the different bodies of this system?

If these questions can all be answered in the negative, they are of very little significance. If they can all be answered in the affirmative, they are, of course, of the high-

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est importance, and perhaps nothing would interest mankind more, or aid science to so great an extent, as the disclosure of the existence of the facts suggested by these inquiries, and the proofs of their existence. I believe it is possible to show that such errors in these theories do exist, but I am willing to admit that to do it requires the performance of the boldest possible task.

Probably there are not one thousand educated people in Christendom who will believe that the present theories concerning these subjects can be overthrown, or who will not declare that any attempt to overthrow them, no matter by whom, is the merest folly. I am not deterred, however, by such facts, from giving my opinion upon these questions, and if I fail to disturb any popular theories concerning them, or fail to advance those more correct. I may, perhaps, propose that which will enable this article to be read. Let us now observe, as distinctly as possible, what science claims were the causes of the existence of the different globes of this system in their present globular forms and of their movements on their axes and around the sun. Perhaps the following quotation, from a work entitled "Astronomy without Mathematics," written by a Mr. Dunson, of England, will be as brief an explanation of those causes as I am able to give: "Astronomers have naturally speculated what was the rudest and simplest state

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of the matter of the universe from which the present condition of the solar system may have been evolved by the known laws of nature, and one original impulse from the hand of God. No one can reflect on all the motions of the system (except a few moons and November meteors) taking place in one direction, both of revolution and rotation, and all very nearly in one plane, without feeling inclined to attribute them to some common cause. And when we see, besides, the multitude of complicated motions, such as those of the moon, which are all unquestionably due to one law of gravitation, probability becomes still greater of some very simple origin of the present state of things.

"Gravitation is quite incompetent, by itself, either to set a single body in revolution or rotation, or to determine the direction in which they should move, except to run all into a heap together. For anything gravitation could do to prevent it the eight large planets and the one hundred little ones, to say nothing of all the moons and rings, might divide the whole one hundred and eighty degrees of possible inclinations, equally or unequally between them, and any number of them might go in opposite directions to the others.

The chances against them all coming within such narrow limits and in the same direction by what is called accidental co-

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incidence, have been calculated to be about a trillion to one.

They must either have been all deliberately put down where they are and projected with the velocities they have, or else their motions must be the result of some much simpler state of things; and if that is possible under the existing laws of nature, nobody can doubt that that is more probable than the other alternative. Laplace and others have come to the conclusion that it is possible, and that if an enormous globe of nebulous matter were once set slowly whirling in the general direction which we call from east to west, it would gradually contract by cooling and revolve faster, and then throw off rings, and then each ring might break and gather itself into a globe, which would partake of the original rotation, besides revolving in the general direction and each globe might afterwards throw off smaller rings which would either stay as such like Saturn's, or run together into moons.

The distance of the planets, therefore, represent the force of expansion of the original nebulæ against the attraction of its parts. Indeed, whether this nebulæ theory is true or not, the distance of everything from everything else represents all the force which has been expended from the beginning, and separating them, or this *vis viva*, they would acquire in coming together by attraction."

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The foregoing is, perhaps, all the information necessary, of what is known as the nebular hypothesis but perhaps I ought to state that the nebula referred to was a gas or substance from which the bodies of the solar system were created, and exceedingly rare as well as intensely heated. To this explanation of this comprehensive theory should be added an explanation of the laws of motion as claimed to exist by Newton, and which, in connection with the foregoing hypothesis, are relied upon to explain the creation and all the motions of the solar system. These laws of motion, as claimed by Newton, were: First, that a body once set in motion will go on forever in the same direction and with the same velocity until diverted by some new force. Secondly, that this new force will draw this moving body aside just as much as it would if it were not in motion, and without regard to its velocity ; and the third law of motion was, that action and reaction are always the same.

By virtue of the existence of these laws he declared that the planets were by some force set in motion at the distances they now are from the sun, and would have continued that motion in a straight line except for the sun's attraction. That this attraction—while it was insufficient to draw the planets into the sun, on account of the centrifugal force it was claimed the planets exerted, and which he also claimed was just equal to the sun's

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attraction—could, nevertheless, change the direction of the planets by preventing their going farther away, and which it was claimed would cause the planets to continually move around the sun. These laws, and the nebulæ theory adverted to, embrace all the causes which astronomy or any other body of learning has given us of the creation of the solar system and its motions.

These theories not only appear to be satisfactory to the learned and the unlearned, but are everywhere taught in our schools. The theory embracing the laws of motion and attraction of gravity, as claimed, is two centuries and a half old, and two centuries ago it was considered infallible and is so considered to-day.

Before assigning any different reasons myself for either of these phenomena,—the creation or movements of these bodies,—I desire to state to what extent I adopt the foregoing theories, and by such a statement I shall indicate what portion of them I deny. With respect to the nebulæ theory I am satisfied the observable matter of the solar system, whatever may be its condition now, once existed in the almost infinite past in the condition of a gas and that the cause of its expanded condition was heat. I believe it had a rotary motion and from the central position of this matter the solar globe was created. That the outer portion of this nebulæ was finally separated into zones, or rings,

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and that they ultimately coalesced into planets and smaller bodies, constituting the solar system. That the condensation of all of these occurred in part by the process of cooling. That the motions of these globes are similar to the previously existing nebulæ. In regard to the laws of motion which I have described, I am satisfied they are not wholly correct. Indeed, in the two last ones, I am able to see but little truth, and even the first one can only be true in case the moving body is passing through space void of matter, a vacuum which nowhere exists, and for this reason, for the sake of the truth of this theory, we must assume an impossibility for its premises. Therefore the first law of motion is a proposition of no value. I do not admit to any extent the truth of the explanation of their famous author of the character or the causes of the circular motions of these different planets and bodies that go around the sun.

I wish here to notice the facts that the Newtonian theory does not disclose the cause of the original motion of any of these bodies, and that the nebular hypothesis does not disclose the cause of the original motion of the nebulous formations, or inform us which of the planets of the system was first created, or which ring was first converted into such a globe, but that it leaves us to infer that the process commenced with the outside ring. This latter theory does not explain

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with any degree of precision the manner and causes of the condensation of the nebulæ; but astronomers have attributed its condensation to the influence of attraction as well as to the process of cooling, and they claim that its motion, as well as the motions of all the bodies created from it, are due to an unequal attraction of the nebulous matter toward a common center.

I will now attempt to explain how these shining bodies that constitute the system of which the sun is the center were brought into existence, and how they acquired the motions which they now pursue. The reasons which I shall give will be widely different in many respects from those given by others which I have quoted, and which are generally believed. I shall avail myself of no assumption of facts the existence of which I cannot prove, and I am confident it will not be necessary for me to do so. The nebular hypothesis is still claimed by some to be an assumption, and not sufficiently verified by facts to warrant them in saying it is anything else than a mere theory. It is claimed by others that it has already been demonstrated, and must be accepted sooner or later as an undeniable embodiment of facts. If the theory I shall advance, and which will embrace the essential features of the nebular theory, be true, the additional evidence of the reality of the principal facts embraced by that theory will not be wanting. Cer-

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tainly if my effort will accomplish such a a result, scientific professions will not regret that these facts are discovered, even though they were not discovered by themselves.

Before the organization of such systems as the one we are going to describe commenced, the matter of which it was composed once existed in a shape that permitted of its organization into the order of things as we now behold them. This condition once admitted of such a considerable difference of the condensation of the appropriate elements of this matter that these creations were possible. One of these conditions was heat, and the other was cold. The one extensive matter was cold, and the less extensive matter was heated. The one was universal, the other was limited. This universal matter was an ether, the limited matter was what we will call nebula. The ether was void of heat, except to the extent it obtained heat from the nebula. So heated was the nebula that its expansion, as it originally existed, measured in that way the greatest possible degree of heat that matter was capable of possessing.

What either of these degrees of heat or cold was, it was the condition this original matter was in, and whatever terms we may employ to describe those conditions, will be only arbitrary, as we cannot determine such conditions by such instruments as man has invented. Whatever the degree of heat was,

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it measured the degrees of cold, and the extreme of cold measured the degree of heat, and each opposed the other in the process of creation. This was the reason why the heated matter was less in extent than the ether that was universal, for no change could have been made in its condition without the opposition of the cold and the loss of its heat, and this could not have been accomplished unless some matter that was capable of absorbing its heat was placed in contact with it, and which would also be capable of furnishing the space for its occupation. If this heated matter was as extensive as the matter that was cold, it could not have been so changed in those conditions as to allow the creation of any considerable organizations, and no such organizations would ever have had an existence. The universal ether was in motion, and it was no exception to that universal law of motion that is everywhere observed, and this nebula was subject to the motions of this controlling and more extensive ether. This is all explained by what we shall say hereafter. The eternal whirling of one of the currents of this ethereal fluid, which connects every human being and everything in nature with God himself, is the force which turned out our solar system, which turns around our earth, which turns around the planets, and continues the operations of those bead-like meteors that turn around the sun and planets,

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like jewels around the necks of human beauties. Could man have beheld the unfoldment of this wonderful system and see how it is still unfolding, he would not be so unwilling to speak the praises of the Creator. We cannot greatly observe the amount that was done, until we have seen how it was all created.

This we will now undertake to show. This unseen and immeasurable ether flowed through the universe and established the currents we are about to describe, as well as more extensive ones and those of different directions; and these currents were not only regular, but eternal in their courses. Whether these currents, of the character we are now about to describe, were all continued in the direction of their axes will soon be determined by the examination of the heavens in those directions. Their diametrical extent is certain, for we behold the evidence of it in the existence of other suns at any angle of its axis. Whether these currents are cylindrical or connected only with the systems which are turned out by them, they are as numerous as the suns that lie in the same direction at any angle of the axis of one of these currents And we have only to count the stars in the heavens in such directions, to learn the number of these currents which have wrought suns and systems like our own.

If my readers are impressed that the boldness of these assertions require proof of their

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truthfulness, I will ask them to be patient till I have pursued these facts further, when they may be satisfied with the evidence I shall produce.

I do not object, however, to a reference here to two existing facts of great importance, both of which are competent testimony in behalf of this theory. I refer to existing nebulæ, as observed by astronomers, and the movement of comets. If the reader will carefully examine one of the elementary works upon astronomy, or the work entitled the "Architecture of the Heavens," by Mr. Nichol, of Glasgow, he will find in what relates to nebulæ a description of the localities, shapes and motions of different bodies of nebulæ now in existence, the appearance of which will be found to correspond in all respects to that condition of such matter that would be sure to result from the motion of a surrounding colder fluid of the character I have described. The other fact I will here notice is the eccentric movements of comets; and it cannot be denied that their movements correspond to the movements of those currents of matter which I have claimed existed. If these comets are in the current which sweeps around our system they will go around the sun too, as regularly as the planets, and if they are located in that broader current which flows between this and other similar systems, they will pass us by with pretentous indifference nor deign to return.

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If they are in our own current, and arrive at the border in too great haste, they may pass out of it into an endless current and be obliged to leave us for ever. These comets are partially condensed fragments of nebulæ, torn off larger masses in their rotations, and are brought around in these currents of ether, and will so continue until they get into a current that continually revolves in one direction, where they will finally condense and become planets or meteors. If this takes place near the sun, it will require a longer period for them to be condensed and have a work of their own.

I must now return to our solar system and pursue the facts which I have disclosed in unfolding that beautiful work of the Creator. I have stated that this force of a whirling current of a subtle ether turned out the solar system and continued its motions.

From a larger mass of nebulous matter this rotating current detached the mass from which the sun and all the bodies revolving around it were created, and this manner of detaching it, and the direction of this current, gave it an elliptic form and a rotary motion, which threw out its equator, and the form of this body, when the edges were seen, was like that created by placing two common saucers together, so that their concave surfaces will face each other. The whole mass turned in the current like a cloud whirling in the wind, and this form would be

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retained while it was approaching that condition of density that would enable it to undergo another advancing change. We have seen that the matter surrounding the nebulæ was cold, and so very cold as to be beyond the measurement of thermometers. The effect of this would, of course, be to cool this intensely-heated nebula, and allow it to pass into other conditions of shape and size, and it is unnecessary to say that it will be done without the assistance of any such law as the one claimed to have accomplished such a change of this matter as we are to describe. We have so long seen it claimed by the authorities of science that this condensation was effected by the attraction of its masses that it is well to note that it is all an error. It is a better law for such a work that we will see employed in this condensation.

The heat of this rotating nebulæ would, of course, gradually radiate into the colder matter around it, and as fast as it thus escaped, this condensation would take place by all its particles approaching the center, where they would be compelled to meet, causing a center of aggregation. This is illustrated to a sufficient extent in the condensation of clouds or vapor. These centers of aggregation would be of the same shape as the mass from which they were congregated, and if the whole body was round these denser portions would acquire the same shape, and such a result would follow the

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condensation of any such body, and the form it acquired by such condensation would be similar to that which the whole body possessed. None of the globular bodies in the solar system ever acquired their shape either by attraction or condensation. In every instance their shape was acquired by a different motion. The process of condensation which I have described would, of course, continue, and after a long period of time the central portion of this nebulæ would become so dense that it would require a greater force to move it around than it would require to move the less condensed portion, and as a result of this it would move slower, separating itself from that portion which surrounded it, and these different portions would then pursue different velocities. It was in this manner that our sun was born. It was the central portion of this nebulous body, detached, as I have stated, that was finally condensed into that parent member of the solar system, and which lights and warms our earth to-day. The reason why it acquired such a preponderance of matter of this nebulous body was the fact that its inertia was insufficient to separate itself from the outer portion until such a difference of density existed between them.

Of course the current which carried both around moved much slower around the center than at any greater distance from it, and this fact aided in delaying the separation

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until this preponderance of this matter at the center was acquired.

We now behold a great wheel in the center of this nebulous body following the same direction as before, and around it an immense ring, comprising all that portion of the nebulæ that was not detached at the center. So extensive was the condensation of this nebulæ around the center that the central portion which we have seen detached, and less than eighty million of miles in diameter, contained more than three times the amount of matter that was contained in this great ring, which was about three billion of miles broad and extending around this incipient sun. Notwithstanding this fact, however, there was quite enough matter remaining in this ring to permit the creation from it of all the planets and the meteors which encircle the greater body of the system. The progress of the central portion after it was thus detached was comparatively simple. Its motion had only to continue and the cold current surrounding it would gradually condense it to that size and condition in which we behold it to-day. The progress of this great ring was altogether different, and the description of its changes will require the most tedious and careful application of the mind, for it was from this ring that every body of the solar system, except the sun, was evolved. How was it done, and how could this ethereal current which had accomplished only what

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we have seen be so employed that it could not only create all these other globes from this single ring of matter, but continue all the motions of the vast mechanism of the system, and all within the current of the power that did it. What finite mind could believe this to be possible if he did not know that it was done. It has been done, and the process by which it was done and which I will describe (and which process was the same with every similar system) was unquestionably the most complicated and at the same time the most beautiful of any phenomena that ever have occurred or ever will occur in inanimate matter anywhere in the universe. We have seen that the sun became separated from this exterior belt because its superior density gave it that inertia which prevented the current that rolled the whole nebula from turning it as fast as it could, this ring, and that this effect was the cause of their different velocities.

This separation created an opening or rent between the ring and the body in the center, and which enabled this colder matter to pass between them in greater quantity and thus encircle the ring on every side. The effect of this, of course, would be to cool this ring faster than it otherwise could, and hasten its subsequent divisions. It is hardly necessary to state that the same process of condensation would take place with this ring that operated upon the whole body of

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nebula, but the inside of the ring was, of course, more condensed than the outside for the process of condensation of the whole mass required more condensation on the side next to the sun, and the effect of this would be to prevent the center of aggregation of this ring being established at the center of the ring. It must on this account be nearer the sun.

It is now clear that this concentration of matter at this center of aggregation will cause a similar occurrence to that which took place when this ring was formed. When a condensation has occurred in this part of the ring to the extent that took place with the sun, the other parts of the ring on the outside of this condensation will sweep on by, and this will cause a division of this ring into three. It is all explained by throwing an amount of stuff into a river that is so thick that it will be controlled by the banks of the stream, and when this stuff is so congregated at one part of the current that it cannot be moved as fast as the rest, the other portions will be carried on faster. This occurrence will divide this ring into three.

The middle ring will not be divided again and it will be broader than any ring, when the other two are divided. The reason why it will not be divided again will be described hereafter; but as it is not divided again and the other two are, if any planet be molded

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from it the planet will, of course, be larger than the other planets. It will be in fact the Jupiter of the system. The reader will now obtain the first indication of the disposition nature has made of that great ring of nebula, and his mind will at once advert to the size and location of the planets to see if the facts I have stated are verified by the size, and localities of those bodies. He will not only find them verified but if he will wait until I am through he will be at the trouble of looking but once to find that not only this fact but the additional facts I shall state are also confirmed by the position and size of the bodies whose creation I am about to describe, no matter how far I may seem to depart from the theories others have advanced. We have now a sun and three rings, the rings all made at once; the middle ring is the narrowest of these three and sufficiently narrow to admit of its being molded into a globe and moons, as we shall hereafter see, and not too narrow to be broken into pieces by the operation of the cold current which carries it around before it can be so molded. The outside rings of these three are much broader, which fact will not permit of their being molded into globes by the process which I shall describe; and the manifest design of the Creator will not be executed if they are not divided into smaller rings, nor will the laws which divide them permit them to be molded until they are divided, as we shall

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hereafter observe. If the process I have described concerning the division of the original ring was the pursuance of natural laws, precisely the same process of division would take place with these other rings. They are now more exposed to the cold by the rents that have been made between them and the middle one, and have condensed to a considerable extent already. They will now condense more rapidly, and the size of the rings when they are divided will depend somewhat on the rapidity of condensation. The ring now existing outside the ring of Jupiter will be divided again in the same manner that the first ring was divided, and as a result of this we will have three rings in the place of it. The middle of these three will be the smallest, for the same reason that the ring of Jupiter was narrower than the rings; on each side of it and the one next to Jupiter, now represented by Saturn, will be the largest of the three, because the ring that was divided was thicker and more condensed on that side; and the ring now represented by Neptune will be but little larger than the middle one represented by Uranus, because the original nebular body was thinner at the rim, and this ring of Neptune included this rim.

These facts will be illustrated by the sizes and localities of those three planets which so perfectly verify these statements that they cannot be denied. It is useless to say there

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was no further division of the ring which existed outside of Jupiter, for these planets with their moons include all the matter of these rings except some meteors which were created in the creation of these moons. It will be useless for astronomers to look for any further planets in that direction. We will now leave that part of the system for the present, and see what has been done with the ring which was created between Jupiter and the sun in the division of the original ring. If this theory is true, this ring also was divided into three, and the middle one will be found to be that one from which our earth was evolved. The present position of this planet will confirm this statement, as we will presently see. In all the processes we have seen of the division of these rings, this tendency of the nebulæ to concentrate at the center is observed, and as soon as the division of a ring is made, it is repeated. Therefore, on one side of each ring the matter stops and moves directly the other way as soon as the division is made. All this is easily explained when we remember that it is only the influence of the cold that contracts all this matter. It can't be claimed that any law of gravitation is now in operation, because, if this was the case, the sun, or what is destined for the sun, would be drawing all this matter into it, and neither the division nor contraction of these rings could occur. The matter shifts back

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and forth under the influence of this cold current, and without the slightest interference of any other influence. Now, returning to the ring inside of Jupiter that we have seen divided, the middle ring being the one destined to become our earth, we also see a ring on each side of that, and they, too, have to be disposed of. They are, of course, small in comparison with the ring of Jupiter, and I will soon explain why these rings between Jupiter and the sun were made so narrow. The ring between the earth and Jupiter was divided the same way as the others were divided, the middle one being the largest and the two outside ones comparatively narrow. The middle ring was molded into the planet Mars. The two on each side of it were condensed, one into meteors, and the other into asteroids. The ring on the other side of the earth was divided like the one we have just disposed of, and from the three rings resulting from that division the planets Venus and Mercury were evolved, and a ring of meteors between Venus and the earth. I call the attention of scientific minds to the fact that the locality and sizes of all the planets of the solar system and the rings of meteors, so far as their existence is known, are such as would result necessarily from the division of this ring (which first existed) by operation of natural law, and also that their localities and sizes confirm the statements I have made with respect to those divisions.

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That I may be better understood, I will take, for example, this ring inside of Jupiter, and see whether the division I have made of it is consistent, both with natural law and the existence of the bodies resulting from those divisions. This ring, while in process of condensation, became more dense near the middle, and this matter lagged behind and divided the ring into three. Of course, the ring on each side of this middle one would be more condensed on the inside than outside, and when the process of division commenced with them, this difference in the density of their sides would necessitate their condensation at a point nearer the earth than the outside of these rings. It will now be easily seen that when they were divided, the rings on the outside would be broader than those on the side next to the earth, and this would enable something more considerable to be created from them than there could be of the smaller inside ones. Hence the existence of the asteroids and the little planet Mercury. The relation of all these bodies to each other are in perfect harmony with these statements. I will now explain why these rings inside of Jupiter were much the narrowest. The current of ether at their distance from the center was much slower, and this slower movement necessitated the more numerous division of this ring. It was not only necessary, but without such divisions those rings could not have been converted into

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planets until many ages after the superior planets had arrived at such a condition. The existence of a great ring between them and the sun, excluding the light and heat of the sun, would have prevented any further change in those planets until this ring was removed. We have seen eleven rings created, and this number did, in fact, exist. No two of them are of the same breadth, and the manner of their creation would not permit them to be, but it established correspondencies which would seem to amount to a law. They certainly present us a rule by which some important problems can be solved; for instance, whether any more planets or moons exist besides those already discovered. In the future, it will aid the astronomer in measuring the stellar universe. I will here take the trouble of showing why no planets can exist beyond the planet Neptune. We have seen that it was once the outside ring of the three created beyond Jupiter, and if there was no division of that ring there could be but one body resulting from it. If there was a division, there would have been three such bodies, each of which would have been but about a third of the size of that planet, and the same law of division would have divided the ring of Saturn, and in the place of that planet we would have had three smaller bodies. As none of these bodies exist, the scientific mind should be satisfied that the present planet, Neptune, is the limit of the solar system. I

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will now refer to the remarkable order of these rings, with respect to size, and any intelligent mind can see that it is not the result of accident, and that the description I have given of them is not the result of invention. If any one undertakes the task of ascertaining what the divisions of the great ring that was detached from the sun would be if the laws of nature were left to divide it, he will find the divisions to be those I have described, and if he will employ the principles of mathematics to the extent that it is possible, he will find that they will establish this result in a manner that cannot be disputed.

Now, commencing at the sun, we find the order of these rings as follows: a narrow one (Mercury), then a broader one (Venus), then a narrow one (a ring of meteors), then a broader one (the earth), then a narrow one, (a ring of meteors), then a broader one (Mars), then a narrow one (a ring of asteroids), then a broader one (Jupiter). Then a descending scale of sizes occurs, a broad ring (Saturn), then a narrow one (Uranus), then a broader one (Neptune). This order presents alternately a small and large ring until we arrive at Jupiter, after which the same thing occurs except that Saturn was necessarily next to Jupiter in respect to size. It can now be seen that this order of sizes would have been subverted by the creation of rings beyond Neptune. I am satisfied that as-

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tronomers will behold all the facts I have stated, and that they will receive at once the impressions of the truth of this theory, and I shall receive but limited contradiction from that direction. They are better prepared than others to examine any new propositions concerning astronomical facts. I will here call the reader's attention to the fact which has probably already been noticed, that I have disregarded the theory advanced by astronomy that these rings were thrown off the original nebulous body, one at a time, from its rim, and that I have also disregarded the theory that they were thrown off by an increase of the velocity of this original nebula, and that their motions were caused by an unequal attraction of gravity. I have disclosed facts showing that neither of these theories is true, and if the known facts existing in the solar system which I have already called attention to are not sufficient to convince the minds of those who have noticed this work that what I have stated is true, they have only to turn their attention to the moons of Jupiter and the rings and moons of Saturn to find what further evidence they may need to enable them to believe that all I have stated with respect to the divisions of these rings and of the laws which were employed to divide them is true. There are now three rings existing around Saturn of the character of those that once

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existed around the sun, and bearing the same relation to each other and to the planet and its moons that existed between the three smaller planetary rings and the rest of the solar system, and it is hardly necessary to state that they were created in precisely the same way. The eight moons of that planet represent the other eight rings which once existed around that planet. The reader's attention is also called to the sizes of those moons and rings that he may observe how they correspond to the planets with respect to this order of size. We will now see what disposition the Creator made of these eleven planetary rings. Their history hereafter will be more interesting. We behold them now all running around the sun in the same directions and moved by the great current which is sweeping around the entire system. Their velocities depend upon their density or size, in other words, upon the amount of their inertia. As these rings are contracted by the cold the space between them becomes wider. So cold is this current of ether that it cannot be penetrated by any of this nebulous matter, and its opposition to the heat of the nebulæ compels a gradual contraction of these rings and renders it impossible for them ever to come together again. So regular and steady is the motion of this current that it permits no violation of the law that separates them by any convulsive motions. We must not forget that

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we are still dealing with nebulæ, somewhat condensed, it is true, and having a consistency not far from that of vapor. It is still in such an expanded condition that when one of these rings is finally molded into a globe the diameter of the globe will measure but a small portion of the breadth of the ring, and three of these rings will be found so narrow that no single globes of the whole of each ring can be made. Before going further with the evolutionary movements of these rings I ought to stop and account for the absence of some things and some motions which it would seem might result from the laws and motions I have described. It will be inquired why these rings could not have been thrown off the rim of the nebula one at a time. It will also be asked why the middle ring of those triplets did not divide again, and why did not all those rings continue to divide until they were too small to admit of further division? These are all forcible as well as natural inquiries. If what I have stated in regard to those rings is true, there are, of course, sufficient reasons why these things did not occur which these inquiries include. If these rings were thrown off one at a time from the rim of the nebulæ they would necessarily increase in size as the process approached the center of the nebulous body, on account of its greater thickness at the center and the decreased velocity of the current which was turning it around. They would,

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of course, decrease in size in respect to their diameter, but this decrease would not be equal to the other effect, until near the center of the nebular body when a ratio of decrease would of course take place. This process of the creation of rings would pare the whole body of nebula away, leaving no sun nor anything to make one from. No one can deny that this would have been the result if the velocity of the rotation of the nebula increased as the rings were thrown off. It is hardly necessary to mention the fact that bodies of vapors and gases would not commence to condense at their surfaces; if they did, this nebulæ would have become incrusted when a sufficient condensation had taken place, around its surface. This could not take place until it become a liquid ball of fire. The reason why the middle ring of each of these triplets did not divide as well as those on each side, are equally valid. They were, of course, more condensed than the outer ones, and this would necessitate more time for their division, and the entire division of the original ring occurred before one of these middle rings could be divided again. As soon as they were established the process commenced of molding them into different shapes, and which process immediately counteracted the process of division, and this fact occurred with all of these rings as soon as they were divided, as I have stated. No sooner had these divisions

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occurred than the counteracting process of molding commenced, and prevented any further dissipation of these rings; and this process of molding I will now describe. It will then be more clearly seen why no further divisions of these rings occurred. We have now seen how the original ring unfolded, blossomed, as it were, like a flower in a day, and this period was but a day in the chronicle of the solar system. Nothing could be more admirable than the means employed by God to convert the rings into globular bodies. It was an arrangement so perfect that when we behold it we are obliged to believe that it was designed in the beginning of creation, and by an intelligence far transcending human capacities. It will be recollected that the shape of this nebulæ and the current which carried it around was eliptic. Their diameters less in one direction than the other. This would require a sharper turn of the current at each end of the ellipse than in the sides between them. The motions of these currents, it will now be seen, would more suddenly change the direction of the nebulæ in them at two points of these currents during a revolution, on account of these sharper turns in these currents. The necessity of these nebulous rings passing through these contracted channels enabled the currents to change their form. In passing these gorges this nebulous matter was congregated like broken ice in the gorges of a river. This pro-

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cess, with the aid of condensation by the cold, had only to continue for a limited period to enable the currents to mold these rings into smaller or more globular bodies. I am aware this statement will be somewhat surprising, and it will be hard for many people to realize that it is true. If astronomers will deny that it is true, I will ask them to climb to their seats behind their telescopes, and again watch the rings of Saturn. If they will do this with sufficient care, they will either find a similar process in operation in those rings, or they will find them so nearly circular that the process cannot take place. They will agree with me that the Almighty left upon all created things an index to the methods of their creation. If what I have said of the creation of this system is true, what, I ask, becomes of that theory illustrated by the whirling ball and string which the ablest rep resentatives of science have employed for centuries to explain the creation and movements of this magnificent system. I think the reader will now admit that I was correct when I said that the Creator employed an admirable method to mold these rings into a different shape, and which was so important a step in their progress. The process is not, however, all described, and a more interesting movement has yet to appear. Those three narrow rings of which I have spoken, one between Venus and the earth, one between the earth and Mars, and a little

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larger one between Mars and Jupiter, do not meet with the same result in pursuing their run around these currents that took place with these larger rings. They contained much less matter, and were able to pass these gorges without their matter being huddled together in one body, and this enabled the cold to contract them until they separated into pieces, and the shape of the current would, with them, aid such a result. With respect to these rings the cold is sufficient to condense all these pieces, and the two smaller rings were converted into meteors by this process. The larger one, between Mars and Jupiter, and which contained the most matter, was broken into larger pieces, and these pieces were condensed into what are known as asteroids. Nothing, perhaps, could be farther from the truth than the theory which so long prevailed, that these asteroids were pieces of an exploded planet. They are now just as they were created, and they sparkle like diamonds around our majestic and motherly sun. These smaller meteors are occasionally handed down to us as if to inform us of their existence. The asteroids can be seen where they are.

These rings are now disposed of, and we have in their places nebulous bodies which are being rolled over in this ethereal current, which is carrying them around. They differ from the original body of nebula, from which the whole system was

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created only in size and density. I ought to state here that when this nebulous matter was so huddled together in these currents in each ring the congregated masses would gradually assume a somewhat circular form, and when nearly circular the current would be able to roll them over, and as it rolled them over their form would become more regular and elliptic in shape. The first rotary motion of these bodies would create another current of ether of the same shape as these rolling masses of nebulæ; and what is perhaps more singular than any other fact in the creation of this system, is the fact that these new currents ever after continue. This would seem to be impossible, unless they were always compounded with other matter (making in reality one body of the whole), and this we shall hereafter see is the case. It is our duty now to follow the changes that will occur in these new creations of nebulæ, and by and by we will conclude that the wonders of this system not only multiply as we discover its progress, but that we will find no end to the unfoldment of matter. These new nebulous bodies while in this elliptical shape, are all rolled around the sun by the general current in the same direction that those rings were carried, and in the same orbit. The reader may better understand their shapes if I state that they were the same as the orbits of the moons around the different planets; for the planets and moons

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were created out of these bodies, and their movements are the same as the currents which circulated around with these nebulous creations. That portion of the current of ether which separated those rings prevents these new creations passing out of their orbits, and furnished the floors on which they roll. If any centrifugal force is exerted by them it is controlled by the currents that hold these bodies, and its greater velocity at their outer surfaces. While these masses of nebulæ are being rolled around, the same process of condensation takes place with them that we saw operating with the original body of nebula, and this, with their motions, has the effect of separating them in the same manner into globes and rings. They will each create the same number of rings, and the amount of matter that will be thrown into these rings will depend upon the density of these bodies. When they have been so divided the elliptic shape of these currents of ether and these rings will furnish the same kind of gorges through which the matter of these rings must pass, as existed in the planetary rings, and these rings, just created, will be molded into moons, or condensed into meteors, in precisely the same way that the planetary rings were converted into meteors, and these nebulous masses and the central portions of these bodies will be at last molded into globes. In all these changes there has

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been perfect harmony of forces and of motion. These currents, which included these nebular bodies and moons, continue to sweep around with them, and is the force which moves the moons around the planets. These currents include these moons, and with the inferior planets is the body which rolls around the sun. I am satisfied that what I shall hereafter state, and the facts which I shall disclose, will convince an unprejudiced mind that I have not departed from the actual operations of natural law with respect to the creation of these globes and moons.

There is only one of these planets around which there can be seen the representatives of eleven different rings. It is Saturn, the one I have so often referred to. They consist of eight moons and three rings. In the future these rings will disappear and in the place of them will be seen one and possibly two moons. One of them will certainly be condensed into meteors, and a careful observation of the two largest with the telescope will enable the astronomer even now to determine whether they will be converted into one moon or two. Each one of these bodies are carried around the planet by the ethereal current which had its origin in the rotation of the nebulous wheel, evolved by the molding process of those planetary rings which I have described ; and its peculiar character, as well as the others around each planet, I shall hereafter describe. With respect to

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the other planets their moons are less in number, and their number will again show the truth of this theory. Jupiter has but four moons. All its other rings were too attenuated to admit of their being converted into moons, before the cold surrounding them could condense them into meteors, although this planet was larger than Saturn. The reason for this will be seen in the fact that the matter of Jupiter constituted the first ring that was created after our sun was formed, and its density was such that it permitted less matter to be thrown off into rings, and for a similar reason the sun was unable to throw off any. The other planets were created at so nearly the same time that any difference in this respect is hardly perceptible. The moons of Uranus and Neptune correspond very nearly with the moons of Saturn. The planets between Jupiter and the sun are accompanied by less moons, the reason for which I have explained, but they as well as Jupiter, Uranus and Neptune are encircled by as many rings of meteors as there were original rings not converted into moons. I am aware that no moons have been discovered with Mercury or Venus, but their existence is as certain as the existence of the sun, and for equally good reasons, and if it was not for the light which the latter extends around them they would be seen more easily than the moons of any other planet except our own. Every planet which can be ob-

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served by looking away from the sun has disclosed its moons, and when this analysis of the system is considered, no person of any astronomical knowledge will deny that there are moons with Venus and Mercury. It will presently be seen where the moons of Mercury and Venus can be found, and if the influence of the sun's light is not insurmountable they can be found during a single revolution of those planets. The only thing that could influence their creation would be the heat of the sun, which might retard their condensation. When I have shown how the ethereal current carries these moons around and the peculiar character of their movements, it will not only be seen that they exist as I have stated, but it will be seen better than now how justly the Creator appropriated these moons for the purpose of lighting these planets. It will be recollected that when I described the process by which these nebulous wheels from which the planets and moons were created, were molded, I stated that they assumed an elliptical shape and created currents of the same form which received their momentum from the rotation of these elliptic masses of nebulæ, and that these currents ever after continued; and I ought to have added that they became the force which turned out these planets and moons. These assertions, however astonishing or original, can be easily proved and will lead to the disclosure of the causes of two important

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facts which astronomy has failed to explain in any satisfactory manner. I refer to the dilatory revolution of the moon around the earth and the nutations of the earth in its revolution around the sun, and similar phenomena occurring with the other moons and planets. If this theory be true, this nebulous wheel should rotate on its axis once in twenty-four hours, the period in which we know the earth does rotate; and should roll round the sun in 365 days, the period in which we know the earth does revolve around the sun. It is this course which it does pursue, and it is this force that is the cause of those motions. It will be at once seen that this motion of an elliptic wheel will cause the body in the center to move up and down, which movements are exhibited by the earth's mutations; and all that need be said in respect to the tardy revolution of the moon, is, that its inertia is what prevents this fluid current from carrying it around the earth as soon as the earth goes round itself. This explanation is appropriate for every planet and moon. We can now see if this is true by measuring the wheels that will encircle these moons, at a little distance beyond their outer surface the wheel including the earth and moon will be of the size that will measure the circumference of the orbit of the earth around the sun in 365 rotations, the period in which it is required to perform it; and the period of the rotations will neces-

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sarily be of the length of our days. Now, what better proof can a rational mind want of the truth of what I have stated? These proofs are so infallible they can neither be denied nor doubted. What a desirable work or effort of the human mind to be able to delineate so wonderful and important a work of God.

Up to the present ponit of the illustrations of the unfolding of our solar system, we have nowhere discovered the evidence of that power commonly known as the law of gravitation. But it will be seen that a law similar in character will be found to operate upon each of these planetary bodies. When this earth is so far advanced as to generate an electrical current, it will be found to exert an influence, and if another great body is found to exist in the plane of its ecliptic, it will be found to exert an influence of attraction upon this adjoining body, and if another is found to exist beyond the one attracted it will be able to crowd the intervening body out of the way of its influence, and the body so removed will then be in a plane to the right or the left of the line of communication between the bodies at the greatest distance apart, and when all the bodies of the system are thus got out of the line of attraction the whole of these intermediate bodies will be in a sphere opposite to the places they occu-

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pied. The sun, of course, is the greatest generator of such electrical currents and controls this manner of arranging the order of these bodies. Now, it will be seen why these sporadic bodies are all in a different place to a small extent, and how these moons are turned from the sporadic origin of their creation and whirled around their planets in a manner different from their original course. This can be seen by observing their present positions and movements. How finely this illustrates the different manner of revolution of the superior planets, for it is the way these moons are turned from the plane of their original positions that enables these larger planets to be rolled on their own diametrical surfaces, and the best proof of this is the fact that each of them does so roll, which fact and the manner of the revolutions of the smaller ones astronomy has never discovered. Now, what further evidence does human intelligence require to be able to see that this theory of a great etherial current sweeping around this noble system is true and is the force that God employs to operate this wonderful and beneficent work of His creation. All that need be said in explanation of the apparent retrograde motions of the moons of Uranus and Neptune, is the fact to be stated that their diameters are presented to the work of the planet's own motions on the side from which they were turned, and they are only pursu-

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ing the same course around the planets. Before departing from the great astronomical features of this better theory of their creation let us reason for a moment on the scattered problems they present to our inquiry. It is observed that these moons spin around the older members of the planetary family in a manner different from the ways that the planets roll around the sun. When we consider how much greater the attraction of these planets is to that exerted by the sun upon the planets we will have no difficulty in learning the cause of this difference. The earth is the one we will take for example, and when it is known that the earth attracts the moon about thirteen times as much as the sun attracts the earth, those who suppose that the world is turned by the attraction of the sun can then see that the earth in such a case will be held in a position similar to that of the moon in respect to the earth, the attraction being so strong that no independent rotary motion could be imposed upon it; for it is this hold upon the moon of the earth through this magnetic attraction that prevents it from being rolled like the earth. What more can be said to convince the unpredjudiced mind that the law of attraction is simply a law of magnetic influence. If those who have so long honored the theory of a different cause will be careful to note all the facts we will hereafter state, it will then perhaps be possible for them to learn that

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even these greatest of scientific authors are liable to err. Now if it is a law of attraction on account of mass only, it will be observed that the earth is always on one side of the sun, and if there is no counteracting influence it must be evident that the earth would very soon be attracted into the sun, and where have we beheld any such counteracting influence except the little amount of attraction that is exerted by a planet on the other side of the earth? But those planets are there but a moment during their revolution and only one at a time. If it be claimed that any centrifugal force is exerted to resist this influence of the sun's attraction it will also be noted that it is all around the circumference of the earth so far as its rotary motion is concerned. This would be as likely to throw the earth into the sun as away from it. The revolutionary motion of the earth is so slow that no member of the science of astronomy will for a moment pretend that a body moving so slow around its central body will exert a centrifugal force of any significance. What will be said, then, of this argument of the attraction of masses for masses as explained by the great bodies of learning? It is all error, and no mind who will ever observe this work will ever be able to believe it again. In regard to the phenomenon of the earth's being lifted into the sky twice each day it ought to be stated that the phenomenon will cease when the earth has ceased to be a

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heated globe; because the heat was the means of its being so created, as we have seen, by the molding process. In regard to the ring of which the moon is the product, it ought to be stated that this was the reason why a portion of the earth was so long bound by a belt of ice and snow. And this is the case of each of the planets which arrived at a condition of incrustation before the ring was condensed. When this cold was removed by the removal of this ring and the operation of the warm rays of the sun, the water was a better illustration of the truth of this statement than the ice and snow themselves, because the water was covered by the dust of meteors and could be witnessed for miles beyond the zone of cold. It can be observed now in the existence of a broad band of shale and only a better name for meteoric dust. Now it is evident that if these waters were covered with meteoric dust the cause of this dust was the same that was causing the cold.

How grand was the object of such a wonderful invention when we behold the object in this world of life and humanity. We have a great big world to live on, and of such exceeding beauty it is all the human family can desire to furnish them a beginning in the eternity of existence. We do not need a better place to appreciate the office of life, and to get the instruction we need for a better one. When all this work is completed it will be found to be still better than anything we have

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yet observed. We see now no way of getting a living but by the toil of our hands and minds; but in the future the way will be open to obtain a living by the forces of nature. Now all that is done for us is to point to the way of a spiritual existence. What shall we now say of that beneficent Father who has done for us what we have beheld. Should we not be grateful for even for what we have seen? Why do not more worlds exist like the one we have seen produced? That is the question asked by all those who have any knowledge of our own. It is in answer to this question that we will unravel the knotty problem that is annoying the whole scientific world. The question whether other planets are inhabited like ours? If we succeed in solving this problem we will be able to allow all of our great scientific names to be handed down to future generations of little consequence in such discoveries. We have seen that the best thing God has created is the possible existence of such inhabitants in this world of ours, and it will be an injustice of incomparable severity if the other planets are to be void of any such adornments; and if this is so the whole object of their existence is as empty as the wind that blows around us. No such inequality exists in nature, and the work of God is all the work of justice. When we learn that it is love as well as wisdom that is seen in all these creations, it will be admitted that this work of the

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other worlds is as much the object of man's existence as this beautiful world of ours. Now let us see if there is not as much evidence of this beautiful theory as there is of the theory of their creation. When the creation of this system of these planetary beings rolled out this great body of ours, it was the operation of this law that evolved the work of the great things we are now to disclose, in which will be seen the evidence we shall give of the truth of this better object of the whole creation. Now it is the law of magnetic influence that is operating to give life and motion to the particles of the matter of the different worlds in such a manner as to be manifested in the creation of animal existence, and it is only the law of love operating in matter that is operating to give these bodies of ours the better office of loving each other. Now it is this very magnetic influence that is doing the work of creating life for each of these other planets, and when it has done for them all that it has done for part of them, it will be only a repetition of what is done for ours. In this operation the greatest of these planets will have been the center of the system of existence of such godlike beings. So now let us inquire if this is already accomplished. In this task you will have to observe that we are dealing with the best possible evidence of a condition of such inhabited worlds. This is all thus explained. In the creation of this system of such great and

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important objects it was not permitted that any world should be created that was not in such a condition of size and shape that it could not be capable of supporting whatever life was created on it; but it is not the case that the smaller planets are in such a condition of improvement that they can have an operating source of life. They are too greatly disturbed by the influence of the larger bodies. They do not improve so fast as the bodies that are so controlling their action, but when the time arrives for such an exertion of their inherent forces, they can also be inhabited too. In regard to the moons and asteroids it will be observed that they are the refuse of a larger system and are only performing the office of aiding in the advancement of the greater bodies, and when it is time for them to improve as well, the greater bodies will return the unrequited assistance. This is going to be done when the heat of the planets is so controlled by this continual rolling around the sun that they cannot exert a greater influence upon their moons than the moons can upon them, and it is not the case that they do so now. When we have now observed that it is only a magnetic influence that is exerted upon these bodies of this system, we will naturally inquire how this magnetic influence is produced. You will not be able to discover how so universal an influence can be exerted unless it is shown how it is created. There

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is in this great body of the sun a better generator of electrical currents than in all the bodies of the rest of the system. In this manner the whole of this system is replenished of what it imparts to the objects around each body. This is the great ever present source of life, and without it the whole system would be all controlled only by the force that carries it around and no change could be made in any respect or anything further produced from such a useless arrangement. The sun is in a great fermentation of solar heat or original heat of the nebula. This is in a great measure due to the busy trespass of meteoric showers on its surface, and it is this great trespass of these meteoric bodies that continues to warm the whole system of planets and moons. The whole of these meteoric bodies that are in the system will be gradually taken into this whirling furnace. Such is the way in which we see the sun all the time trying to get the whole system cleared of these useless things. What a great big washing improving the methods of all known devices. This is all that need be said of that question that is doing no little to agitate the scientific inquirer. There is no better illustration of that phenomenon known as the November and August showers of meteors. It is at these times that the earth is in the path of meteors that are between the earth and the sun. Now this is explained by the

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fact that the full orbit of the earth is less than what it was when it was established, and this brings it into the orbit of this ring of meteors which has changed its course greatly less than the earth, because the earth has prevented it from being attracted into the sun in its otherwise natural progress. Why do not the moons and earth also get drawn into the sun as fast as its motions will allow so much matter to be brought on to its surface, is the question which all will ask when this statement is read. It is because its attraction is too weak to affect even one of those little beautiful planetoids or asteroids. Why is such a weak attractor so generally feared? It is as harmless as the love of an affectionate woman and is as maternal as the mother of children.

What can we say more about the system we have so carefully described? Most all that is said is so well confirmed by facts that it is able to stand without supplemental aid. We cannot, however, close so important an article as the one we are soon to finish, before we advert to a still higher office of such motions as these planetary and solar motions are describing in the heavens. They are so constructed as to permit the important trespass upon their revolutionary course of the influence of greater systems than this upon their own courses. This is seen in the better beautiful authority of the Milky Way which is only a greater system of the designs of the

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Almighty Creator, and which is all that he has yet created in the line of stellar beauties. Astronomers have been almost to the verge of the great work of this system, and in time will be able to have it all measured and counted. Now let us turn to the better world that is created for the souls of mankind and see if such a world as the one we have seen in this life is not improved there. In this other existence the world we have seen in life is the one we shall occupy when life is over, but it will be in a spiritual condition and in a better condition of such matter than the earth is seen to have. Such a great beautiful world as this is not so bad, but a better life is evolved from this, and it is of these evolutions of soul and matter that the better world is made.

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